

**Abstract of the Disclosure**

A generally cylindrical expansible shaft includes an outer profile, and a generally cylindrical inner body having a longitudinal axis and at least one first coupling element. At least two semi-circular leaf elements may be movably coupled to the first coupling element of the inner body by means of at least one second coupling element. The leaf elements may together substantially form the outer profile of the generally cylindrical expansible shaft. At least one thrusting element may be operatively disposed between the leaf elements and the inner body to move the leaf elements radially outwards relative to the longitudinal axis to increase an outer diameter of the shaft when in a first configuration, and allow the leaf elements to move radially inwards relative to the longitudinal axis to decrease the outer diameter of the shaft when in a second configuration.